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MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY.

VOL. LVIII. JANUARY 14, 1898. No. 3

SIR R. S. BALL, PRESIDENT, in the Chair.

Edward John Griffin, Commander R.N.R., Commander R.M.S. *Moor*, Union Steamship Co., Southampton;
J. Nevil Maskelyne, 88 Trinity Road, Upper Tooting, S.W.;
Ambrose Swasey, Cleveland, Ohio, U.S.A.;
John Vaughan, Sub-Lieut. R.N.R., Commander China Navigation Co., Shanghai, and 42 Aubert Park, Highbury, N.; and
Thomas Emley Young, B.A., President of the Institute of Actuaries, 108 Evering Road, Stoke Newington, N.,

were balloted for and duly elected Fellows of the Society.

The following Candidates were proposed for election as Fellows of the Society, the names of the proposers from personal knowledge being appended:—

Eric Doolittle, B.Sc., Assistant, Flower Observatory, University of Pennsylvania, Philadelphia, Pa., U.S.A. (proposed by T. J. J. See);
Rev. Kingsbury Jameson, M.A., Highfield, Hendon (proposed by Alfred H. Fison);
Alfred Taylor, Messrs. T. Cooke & Sons, Buckingham Works, York (proposed by Robert Wigglesworth).

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Eighty-five presents were announced as having been received since the last meeting, including, amongst others :—

The collected works of Arthur Cayley, vol. xiii., presented by the Cambridge University Press ; Annals of the Royal Observatory, Cape of Good Hope, vol. iii. (The Cape Photographic Durchmusterung, Part 1) ; vols. vi., vii. (Determination of the Solar Parallax and the Mass of the Moon from Heliometer Observations of *Iris*, *Victoria*, and *Sappho*) ; Results of Meridian Observations made during 1861–65 under the direction of Sir Thomas Maclear, reduced and printed under the direction of David Gill ; Appendix to Cape Meridian Observations 1890–91 (Star Correction Tables by W. H. Finlay), presented by the Observatory.

On the Parallax of Sirius and of α *Gruis.* By David Gill, C.B., F.R.S., &c., Her Majesty's Astronomer at the Cape.

In connection with the preparation for press of a work containing determinations of the parallaxes of the 1st magnitude stars of the Southern Hemisphere, I have recently discussed a series of observations for the parallax of *Sirius* made by me with the Cape Heliometer in the years 1888 and 1889.

The results seem to be of sufficient interest for communication in a brief form to the Society. The details will appear subsequently in the *Annals* of the Cape Observatory.

The selected comparison stars were :—

γ = B.D. − 16° 1593 ;	mag. 8·7 ;	P. angle from *Sirius*	279°·17 ;	S = 4310″
δ = B.D. − 16° 1623 ;	„ 8·7 ;	„ „ „	101·26 ;	S = 4536
		Difference ...	177°·91	226″
		Sum ...		8846″

The parallax factors for the difference and sum of the distances are :—

For $\delta - \gamma$ $1{\cdot}997 \, R \cos (\odot - 15^\circ{\cdot}6)$

$\delta + \gamma$ $0{\cdot}023 \, R \cos (\odot - 105^\circ{\cdot}5)$

so that the mean position angle is nearly in the major axis of the parallactic ellipse. The pair is thus a very favourable one for our purpose, except that the comparison stars are rather too faint for the most exact measurement.

The observations were arranged symmetrically—*i.e.* in the order γ, δ, δ, γ, or δ, γ, γ, δ—so that the mean instant of observation for each distance is nearly the same.

The light of *Sirius* was diminished by suitable wire gauze screens till the reduced image was similar in every respect to the images of the comparison stars when the latter were viewed through the non-obscured segment of the object glass. The

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